medical problems discussed, and that every county society might well add this volume to its own library and make its presentations a basis of discussion at one or more meetings. The quotations above referred to will be found in this issue on page 138.

The Public Health Significance of Cultist Medicine Only Briefly Considered.—In a work of such comprehensive scope it was somewhat surprising to find less than three pages given to a consideration of the influence of cultist medicine and of nonmedical practitioners. A significant sentence states:

"... In addition to physicians there are about 35,000 sectarian practitioners of the healing art—osteopaths, chiropractors, Christian Scientists, naturopaths, and other drugless healers, most of whom are practicing medicine. A large majority of these practitioners have had little educational preparation and usually no semblance of scientific training."

* * *

Cultist Medicine Pulls Down the Standards of Healing Art Practice Far More than Do the Weaklings in Nonsectarian or Regular Medicine. In discussing the deficiencies existing among the nonsectarian practitioners, and of the medical schools in which they received their training (at this time there are sixty-six four-year course medical schools in the United States), would it not have been good policy to have emphasized somewhat more than was done, in the brief space allotted, the harm to public health interests arising from the fact that some 35,000 sectarian practitioners—the majority with woefully deficient preliminary and professional training—have been given legal recognition to go before the public as competent practitioners of the healing art? Granted that nonsectarian medicine contains within its fold some who have been poorly trained, or are otherwise incompetent, it still remains true that compared to the cultist practitioners the number and influence of such are comparatively small. The basis of all healing art licensure is the protection of public health standards, through the prevention to practice the healing art, of all persons who are lacking in proper preliminary and professional training qualifications.

Witness the sad conditions existing in California where, through an initiative vote of the citizens, the chiropractors are given an examining board that is practically obligated to accept diplomas from chiropractic schools, no matter how woefully deficient the admission and training standards of the schools may be. It is true that the greater the number of incompetent graduates of sectarian schools, the more must such cultist schools and their proponents ultimately fall into disrepute. But at what a fearful public health cost while this is taking place!

The Criticism of Basic Science Laws as Contained in the Report, Somewhat Academic.—It was also rather disappointing to note what seemed

an academic criticism of basic science laws, in spite of the fact that the figures from states having such laws indicate that basic science licensure goes far in acting as a real deterrent to the licensing of poorly qualified cultist practitioners. The theoretical advantages of uniform high standards and laws in medical licensure is acknowledged. If the police jurisdiction which is vested in the several states did not make the plan impossible, a national medical examining board to carry out a federal medical licensure statute would be a happy solution of many difficulties. But we can never have that because of the mode of government of our nation and its constituent states. This being the fact which faces us, we should be of a practical turn of mind, and in these matters accept and do those things which best protect the public health and the high standards of medical practice. If basic science laws help protect citizens, and especially citizens who are not in a position to exercise discriminating judgment in the choice of attending practitioners of the healing art, then such basic science laws might seem quite worthy of serious consideration. The protection of the lay public and of general public health activities and standards would seem in many ways to be a more immediate obligation than the promotion of certain university standards or policies in healing art training, no matter how idealistic or desirable.

1 1 1

The above are a few of the topics which a scanning of the pages of this excellent volume brings to our attention. There are many others which might be made the subject of comment. It is hoped that a considerable number of members of the California Medical Association will give themselves the pleasure of reading this report.

IS PREMEDICAL TRAINING OVERVALUED?

Viewpoints of Some Medical Deans.—Table 120 in the appendix of the "Final Report of the Commission on Medical Education" has the title "Excerpts from Letters of Deans of Medical Schools." Eighteen deans are quoted. Letters 11, 15, 16 and 18 will be here reprinted and some comment made thereon. The quoted excerpts follow:

"11. I feel it beyond question that medicine now is getting very good men who do well in college, well in medical school, and then who make a lot of money in practice. Our modern medical graduates have a keen eye for business. That is the hardest problem of the medical dean of today. This is definitely contrary to the spirit of the profession, for a medical man will be a true success in his profession in direct proportion as the spirit of service rules him. He may make lots of money, but he doesn't go after it. Our recent graduates do.

"15. While we have no data at hand, after twenty-three years of observation and personal contact with each student for two of his four years' medical course, it is disappointing to note the relatively slight improvement shown as a result of raising the entrance requirement.

"In the majority of cases, the premedical training has been more to satisfy entrance requirements, i. e., to obtain credits, than to give him a better and broader foundation. This condition will not change unless the premedical course is brought under the control and supervision of the medical faculties.

"I am inclined to believe that the advancement claimed for medical students since raising the preliminary requirements is due to the marked progress of the science itself, to improved and increased hospital facilities, to compulsory internship, etc., rather than to any increased preliminary requirements.

1 1 1

"16. We find certain schools supplying us with very good men, while others are giving us but mediocre or even poor types.

"From my experience as a teacher extending over fourteen years, I have arrived at the conclusion that it would be far better to lengthen the medical course and shorten premedical work, than to increase the premedical requirement. After spending four years additional in college, enthusiasm for medicine is somewhat damped, the student becoming habituated to study for credits, rather than for the acquisition of the subject.

1 1 1

"18. I sigh for the good old days when we obtained our students from the first class high schools. These boys were really full of enthusiasm, eager to receive, and not yet sophisticated to the point of selecting a specialty in the undergraduate years of medicine."

* * *

The Commercial Sense in Physicians.—It would be of interest to know how many of the older and of the recent graduates in the California Medical Association are in accord with the opinion of the dean whose letter was marked 11. We ourselves have heard the substance of his criticism not infrequently during recent years. Whether a stronger commercial sense, if it exists in recent graduates, should be criticized or commended, depends largely upon the manner in which the commercial sense manifests itself. Certainly no objection can be legitimately raised when a physician desires proper compensation for professional services well rendered. By proper compensation is here meant: pay for medical or surgical services at prices not in improper excess of the amounts which would be charged by men of equal professional training and ethical standing, taking into account also the financial status of the patient and other proper facts.

The point has been brought forward by some physicians, that recent graduates are put to such a heavy expense to secure their training and that the modern medical teaching is of such a nature that rural or general practice is now so little attractive that almost of necessity the younger members of the profession have a natural tendency to drift toward and establish themselves in city surroundings. In order to do this, the first offices of the young physician are too often elaborately equipped. This expense, when added to high office rentals and the higher cost of living, brings home at once to the younger member of the profession the need of an ample financial income to meet all these expenditures. As a consequence, it happens from time to time that some of the recent graduates, in spite of their desire not to do so, are led to charge excessive fees, to the ultimate detriment of the interests of their profession and of themselves. By contrast, in the decades not far distant, the majority of men entering the profession established themselves where overhead expenses were low; but where much work was to be done. Often it is true they did much work without great immediate money rewards. But with the passing of the years many of such physicians, both in urban and rural practice, found themselves receiving incomes that not only permitted them easily to live as befitted their stations in life, but also to set aside reserve funds for future days. Such physicians were able to do this with the esteem not only of a large clientele of devoted patients, but at the same time with the respect of many other citizens who contacted them. To that extent the dean who wrote letter 11 would seem to have been quite in the right when he stated "a medical man will be a true success in his profession in direct proportion as the spirit of service rules him."

* * *

Has the Value of Premedical Training Been Given an Overvaluation?—Letters 15, 16, and 18 may be said to raise this query. The editor has long thought and written that state medical laws which make two and three years of premedical training of collegiate standard an obligatory requirement for medical training and licensure, have failed somewhat, adequately to serve the highest interests of healing art practice. This statement is not to be construed as meaning that such two to four years of premedical collegiate work should not be utilized by all who have financial means or special inclination for such training. It is intended to mean by and large, that a course of medical training based on a four-year high school course, plus one year of premedical training in a liberal arts or science college, plus five (not four) years of medical training, plus one year of internship, would probably place in practice as well or better trained physicians than are now being graduated on the basis of two or three years of compulsory premedical work and four years of medical training (with internship not compulsory as a college or state licensure requirement). The first plan demands seven years, even though only one year of premedical work would be compulsory therein. The second plan, or the one generally in vogue in many schools of today and demanded by many state medical practice acts, also needs seven years (three years premedical and four years medical) training. We cannot get away from our belief that the modern medical man needs more training in medical rather than in premedical work and that he also very much needs the practical experience of compulsory internship. It has never seemed reasonable to us to contend that cultural training necessarily results in large degree from the liberal arts training, or that greater cultural results came to the individual if so-called classical studies were stressed. We have always felt that the biologic and associated studies we pursued for the B. S. degree had quite as much cultural influence in stimulating thought and outlook as did the classical studies which were taken. In any event one's cultural instincts and development are something that are quite as much a part of one's own innate self as they are a consequence of certain so-called cultural or foundation curricula. Two extra years of premedical studies are not apt to instill culture or bring it to full development or fruition unless it already has a sound basis for existence. And if a cultural basis is present, the nature of a physician's work and living are such, that there need be little fear concerning the cultural development which will take place within him, as the years go by.

The 1910 Carnegie Report on Medical Colleges. Along this line, the editor in recent years has been tempted to ask himself whether the report made in 1910 by Abraham Flexner for the Carnegie Foundation for the Advancement of Teaching, which created so much furor at the time and which may be said to have been responsible for the reduction of the number of nonsectarian medical schools from about 160 to about 75 or so, actually did the vast amount of public health service credited to it by some. In making this statement no brief is held for certain nonsectarian medical schools of that time which were very properly put out of existence. But of the other schools which in that day went out of existence directly, or through absorption or union with other schools, there were two score or so that had been doing very honest and quite efficient work. The rosters of graduates of some of those smaller and now inactive schools contain in their lists the names of many men whose contributions to medical science and advancement have by no means been inconsequential. Many of the graduates of such so-called inferior schools made for themselves distinct places in rural and urban practice. The majority of them were loyal to the tenets of nonsectarian medicine and to public health interests. Today we hear the cry made far and wide, that our recent graduates do not wish to be practitioners in rural communities or to take up general practice as in the days gone by. In many of the states of the Union the places of the graduates from the smaller nonsectarian schools are nowadays being taken by poorly prepared cultist graduates. Can such a state of affairs be said to accrue to the benefit of the public? Have the lay citizens in such communities been greatly aided by this change, or have the public health standards of our State or Nation been materially advanced thereby?

When we point to modern day advancement in medical practice, have we a right to ascribe so much of it to the greater amount of preliminary education in vogue since 1910, or is the dean who wrote letter 15 correct when he states:

"I am inclined to believe that the advancement claimed for medical students since raising the preliminary requirements is due to the marked progress of the science itself, to improved and increased hospital facilities, to compulsory internship, etc., rather than to any increased preliminary requirements."

1 1 1

From the comments here made concerning this "Final Report of the Commission on Medical Education" it is easily noted that the volume evidently contains many presentations on which interesting discussions could be had by members of medical faculties and societies. The volume as before stated is worthy of perusal.

Left-Handed Twins Common Phenomena, University of California Study Shows.—If you are a twin there is about one chance in nine that you will be left-handed. If you are not a twin the chance is only about one in fifteen.

This tendency of twins to be left-handed more often than single-born children is definitely shown by a study of 521 single-born children and 386 twins recruited from nineteen junior high schools and sixteen senior high schools of Oakland, Berkeley, and San Francisco, which has just been completed by the University of California Institute of Child Welfare.

The work was done by Dr. Paul T. Wilson and Professor Harold E. Jones, director of research at the institute. Using the criterion of throwing hand as the best test of left- or right-handedness, they found that approximately 11.1 per cent of all the twins tested are left-handed, whereas only 6.5 per cent of the single-born children are left-handed.

In a report of this work written for the magazine Genetics, Doctor Wilson and Professor Jones explain that the hand with which a person throws a ball is a better test of left-handedness than other things, such as writing. This is true because left-handed individuals may be trained to write and do other tasks with the right hand, but no one bothers to change the hand which they naturally use in throwing.

Comparison of twins and single-born children in the matter of writing hand showed no dependable or significant difference. The same thing was true of a test to see whether the left or right eye was dominant, and of examinations of the direction of spiral in the crown whorl of hair.

As a tentative suggestion the report states that left-handedness in twins may be fostered by the crowding which they undergo and their position in the mother before birth. In some cases this might lead to the development of functional predominance of one hand.—University of California Clip Sheet.

Tularemia.—The following precautions should be rigidly observed by hunters, market men, housewives, and others who handle wild rabbits if they would be absolutely safe from tularemia, or rabbit fever:

- 1. Never put your unprotected hands inside a wild rabbit.
- 2. Always wear rubber gloves when handling wild rabbits.
- 3. The rabbit must be thoroughly cooked; so well cooked that there is no red meat, nor any red juice, near the bone.
- 4. As at least one per cent of all wild rabbits are infected, the hunter, to be perfectly assured of safety, should not take home a wild rabbit that he shoots in the field if it seems sickly.
- 5. In order to minimize possible infection, rabbits which seem slow or sickly, or can be run down and killed with a club, should be killed and, preferably, buried.
- ... The germ, B. tularense, also is killed by a temperature of 137 degrees Fahrenheit. Infection is possible even though the skin is unbroken. All rodents are liable to the infection.